EVlink

Electric vehicle charging solutions

Catalogue
04.2014

Schneider Electric

EVlink charging solutions: giving e

Air

About 50% of the CO_2 compared with a conventional vehicle*

Health

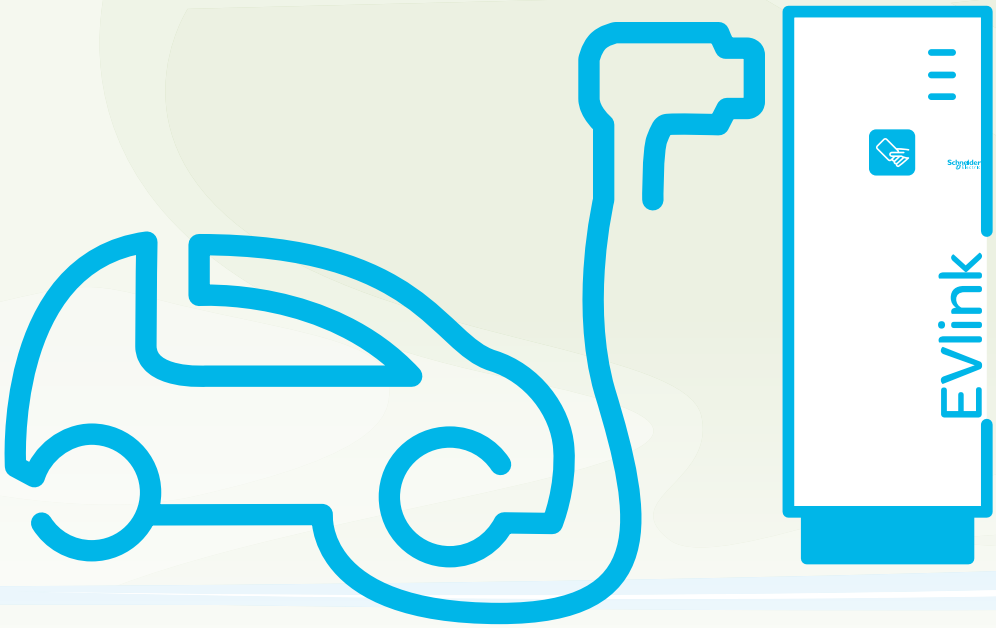
No greenhouse gas emission

Smart grid

Boosts the expansion of smart grids

Eco-responsibility

An eco-responsible solution for everyday travel



* 'From the well to the wheel - European mix' evaluation – Source: EDF 2010

energy to the future

> "The creation of a reliable, efficient network of charging stations will greatly boost the development of electric vehicles"

Schneider Electric is a partner of the SAVE and ISSYGRID charging network projects and other international projects.

Our partners have chosen to equip their dealer's premises with EVlink charging stations

RENAULT

BMW

Ford

E.V.READY

A voluntary quality marking. Safety, Interoperatibility, Performance and durability certified by ASEFA, a third party laboratory. Schneider Electric is involved in E.V. Ready project.

A founding member of the EV Plug Alliance, Schneider Electric is campaigning for the rapid adoption of charging infrastructure standards in order to ensure user safety.

This label guarantees that charging facilities are of the highest safety level, economical and in compliance with the latest IEC standards in force.

Electric vehicle charging solutions

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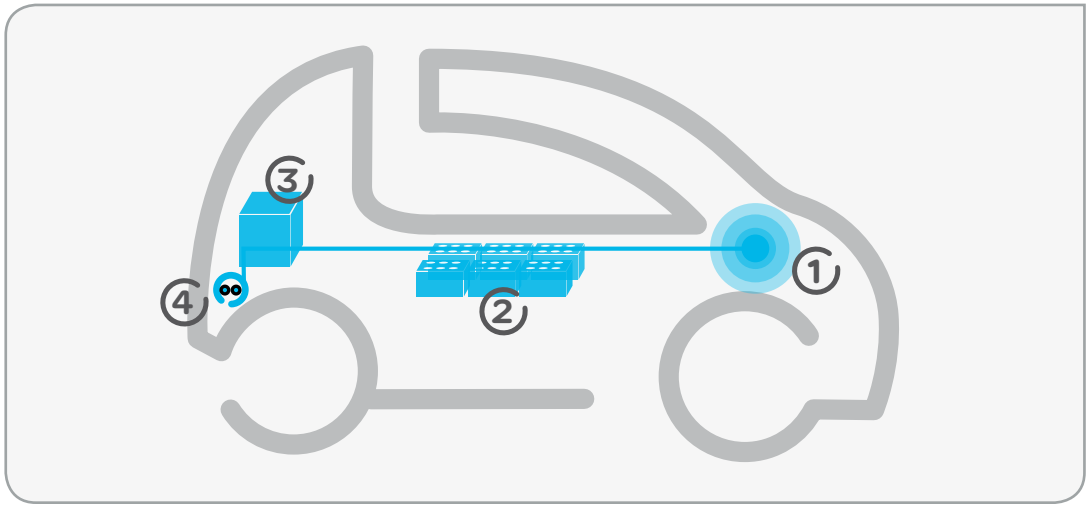
EVlink

Discovery

The electric vehicle

4 major items:



① The motor

One or more motors equip the vehicle. Depending on size and performance, the total capacity ranges between 15 and 200 kW.

Example: 48 kW (65 hp) for a small 4-seater saloon.

② The battery set

It provides the energy necessary for the motor to operate. Charging takes place either during deceleration of the vehicle (motor in generator mode) or upon connection to a charging station.

The capacity of the batteries is approximately 5 to 40 kWh, at a voltage of 300 to 500 V.

Battery and distance range

The vehicle's distance range depends on battery capacity but also the driving style, the route configuration and the use of accessories (headlights, heating, etc.).

③ The charger

The charger converts the alternating current from the charging station into direct current and limits the inrush current to the maximum acceptable by the cable + charging station combination.

④ The charging inlet

The vehicle is equipped with one or two inlets by the manufacturer depending on the type of charging required:

> at least one inlet for 'normal' or 'accelerated' charging on the AC network

> possibly a second inlet for charging at a fast charging station

Focus on technology

The batteries

Battery technology has made very significant progress in recent years.

Lead has gradually been discarded for other more efficient compounds.

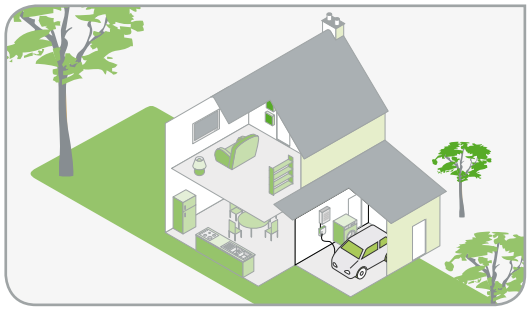
Research is continuing with a view to improving capacity and reducing weight and heating during power inrush.

The technology most commonly used at present is lithium-ion.

These new batteries have no memory effect and can therefore be charged without having to wait for them to be completely discharged.

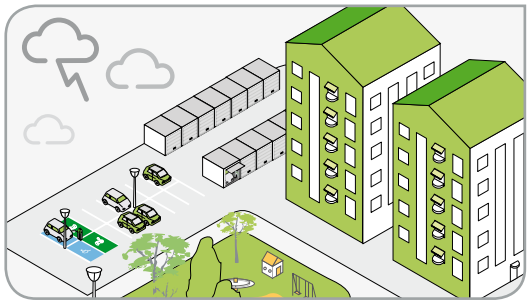
They can be found in telephones, laptop computers and certain aircraft, but also in electric cars.

Where to charge



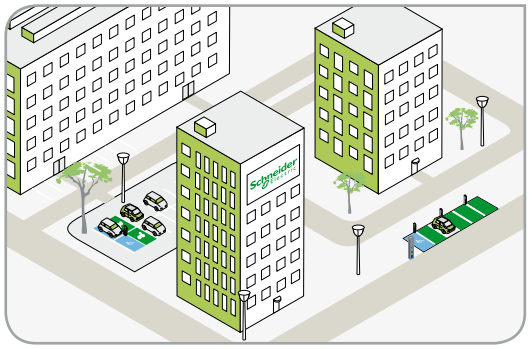
At home

A charging station dedicated to private usage is installed in the garage.



At home - apartment complex

A charging station dedicated to indoor or outdoor usage, installed on a private parking place.

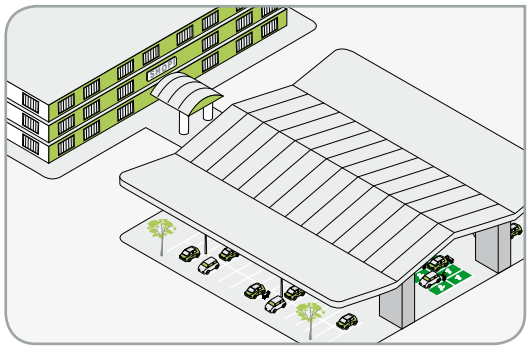


At work

Some companies decided to install charging stations in their own parking areas.

They have the choice: either free or paid charging for users.

Municipal fleets, and the fleets of delivery services and government departments generally have parking areas fully equipped for charging their electric vehicles.

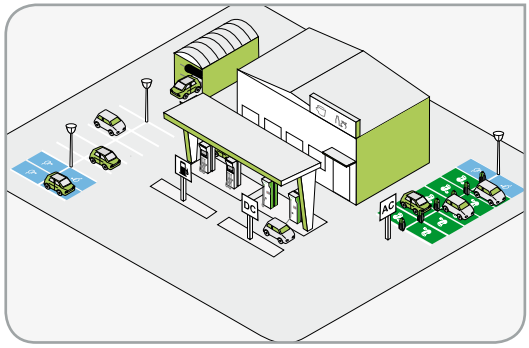


On a secure parking area

Aware of new customer expectations, operators of covered public parking area frequently propose charging stations on their parking areas.

They can generally be accessed with a badge, based on various commercial conditions.

Municipalities and car park managers are now developing these services.

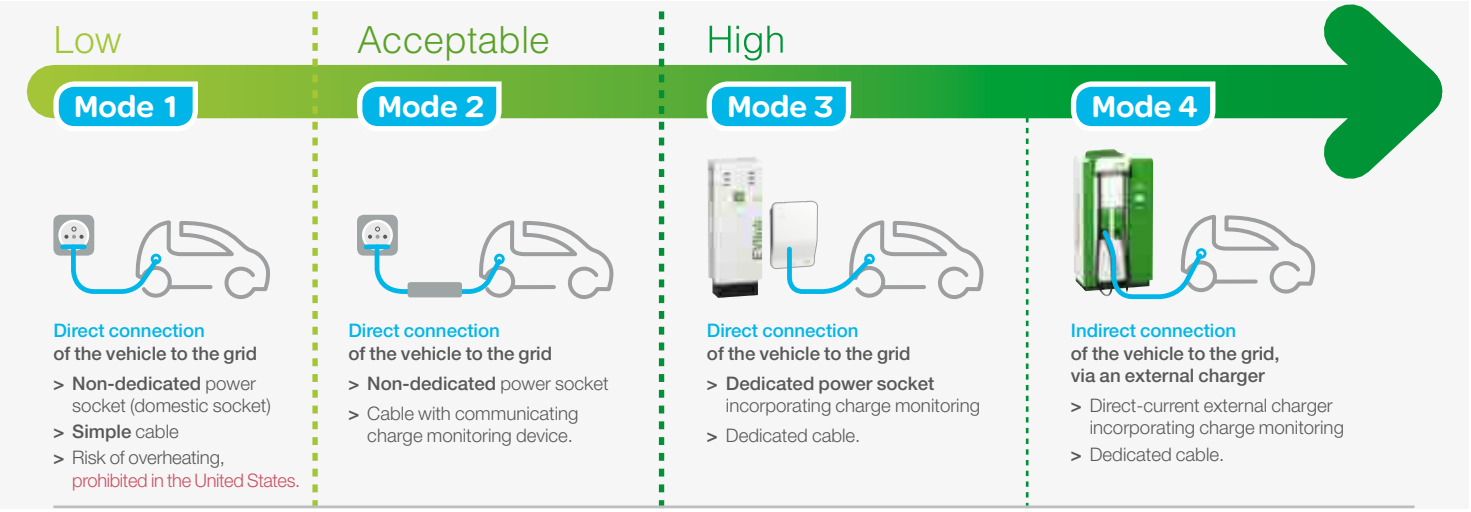


At service station

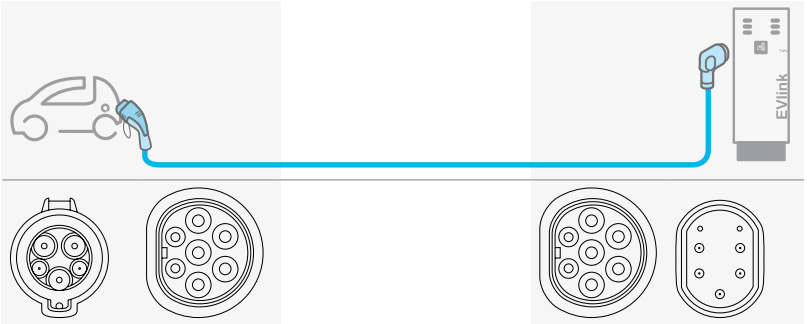
Service stations equipped for fast charging are appearing at test locations in some countries. The 30 minutes of charging required are used to have a break or do some shopping in the supermarket.

Charging

> The charging mode determines the safety level


Low
Acceptable
High
Mode 1
Mode 2
Mode 3
Mode 4
Direct connection
of the vehicle to the grid
> Non-dedicated power socket (domestic socket)
> Simple cable
> Risk of overheating, prohibited in the United States.
Direct connection
of the vehicle to the grid
> Non-dedicated power socket
> Cable with communicating charge monitoring device.
Direct connection
of the vehicle to the grid
> Dedicated power socket incorporating charge monitoring
> Dedicated cable.
Indirect connection
of the vehicle to the grid, via an external charger
> Direct-current external charger incorporating charge monitoring
> Dedicated cable.

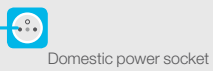
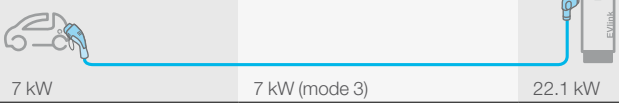
> The type of charging connector determines the maximum permissible charging capacity (1)



Manufacturers' data (2)	Type 1	Type 2	Type 2	Type 3
Max. power (single-phase)	3 kW	7 kW		
Max. power (three-phase)	22 kW			
Max. current	32 A			

(1) Subject to a suitable cable cross section.
(2) The IEC 62196-62 standard defines higher values in anticipation of technological development.

> The effective charging capacity is that of the weakest 'link', for example:

Vehicle charger	Cable / charging mode	Charging point	Effective charging capacity
7 kW	3 kW (mode 2)	 Domestic power socket 2 kW	2 kW
 7 kW	7 kW (mode 3)	22.1 kW	7 kW

The power of the source determines the speed of charging*

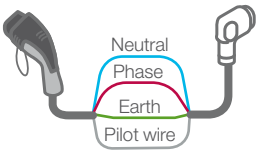
Example for a vehicle fitted with a 22 kWh battery and having a touring range of 150 km:

Source used	Domestic power socket	Dedicated AC power socket		Dedicated DC power socket
Power	Single-phase: 2 kW	Single-phase: 7 kW	Three-phase: 22 kW	Three-phase: 43 kW
Time to 'fill up'	12 h	5 h	1h30 min	30 min
% of charge reached in 30 min	4%	10%	34%	100%

** Subject to the use of a suitable cable.*

Focus on technology

The charging cable

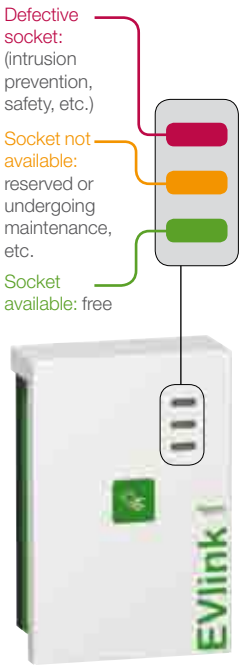


A 'pilot' wire allows data communication between the vehicle and the charging station. The latter will start charging only if the following information is present:

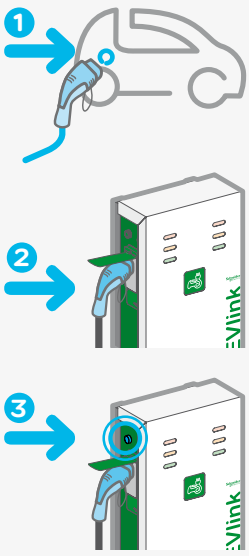
- vehicle connection OK
- vehicle earthing OK
- indication of the maximum power allowed by the charger

Using a charging station

Check the availability of the charging station


Defective socket: (intrusion prevention, safety, etc.)
Socket not available: reserved or undergoing maintenance, etc.
Socket available: free
EVlink

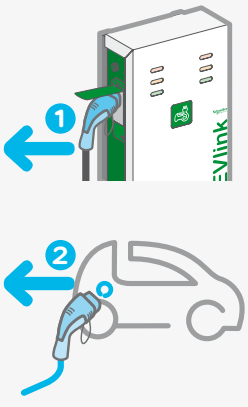
Plug in to the charging station



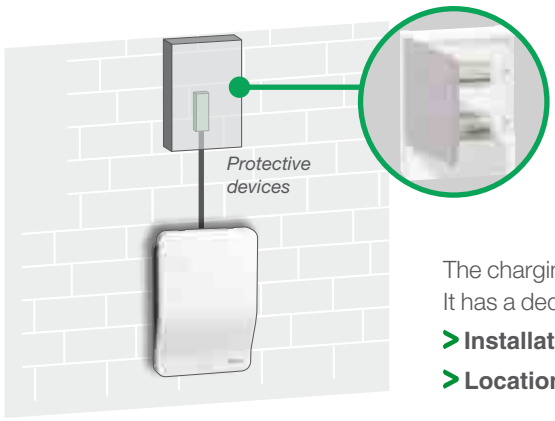
Check that the vehicle is fully charged

Charging can be stopped manually at any time

Disconnect from the charging station



Charging architectures



The charging station operates autonomously.
It has a dedicated protective device.

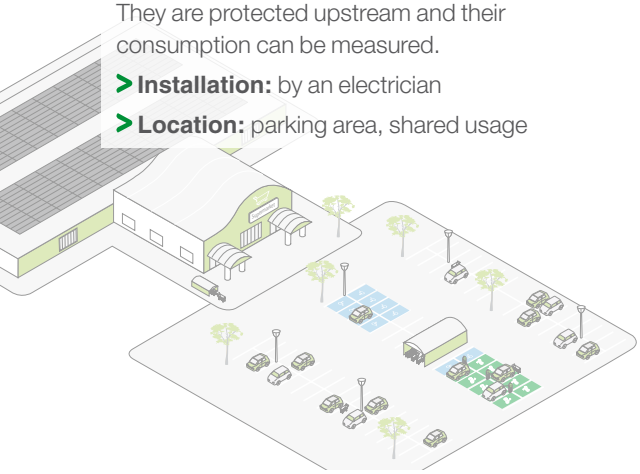
> **Installation:** by an electrician

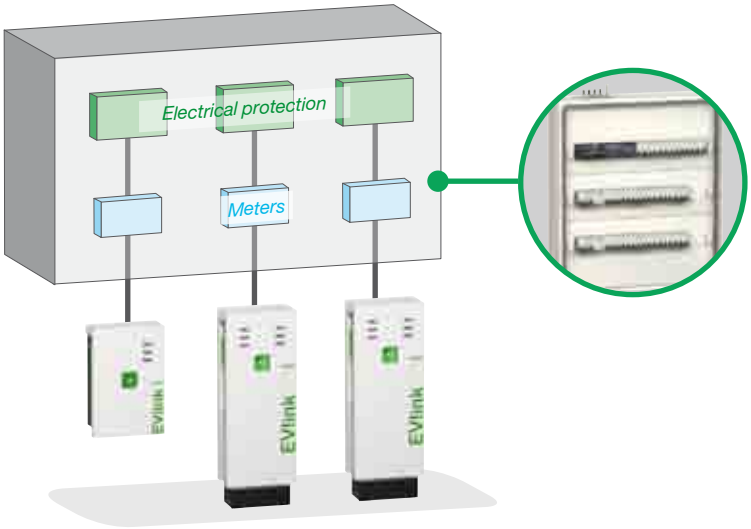
> **Location:** residential, private usage

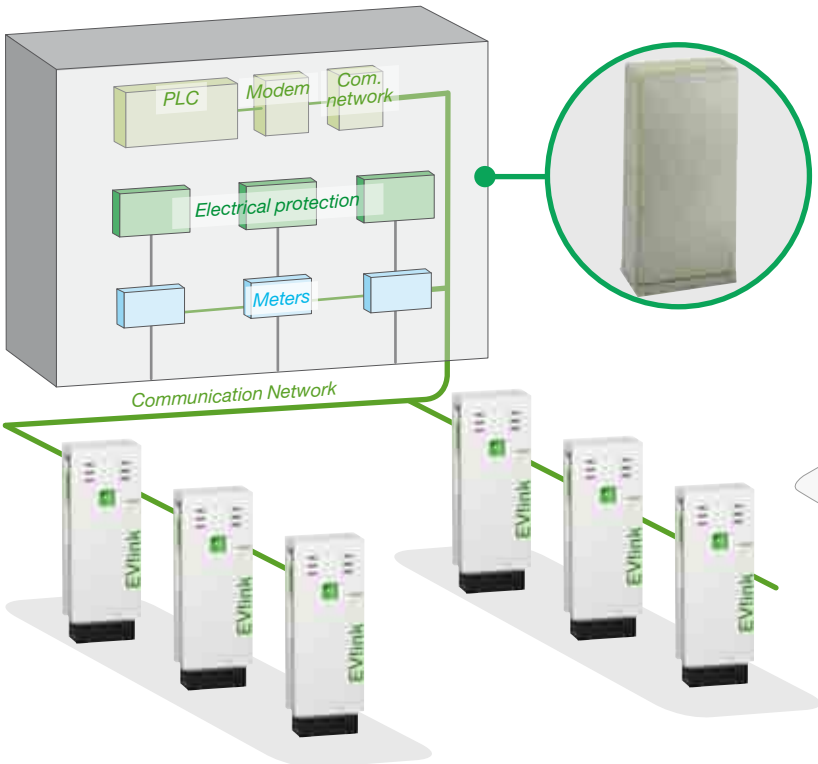
Each charging station operates independently.
They are protected upstream and their consumption can be measured.

> **Installation:** by an electrician

> **Location:** parking area, shared usage



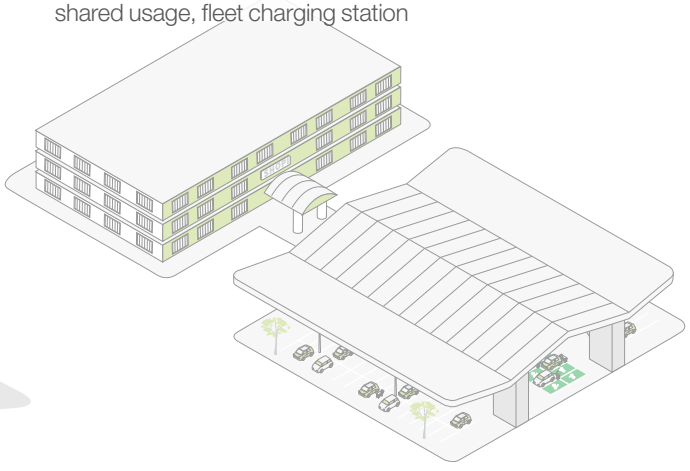




The charging stations are clustered thanks to a controller which manages all features at cluster level, including energy management, driver access control and authentication as well as commissioning.

> **Project:** Schneider Electric project to customer specifications

> **Location:** parking charging station, shared usage, fleet charging station



The EVlink product range

Electric vehicle charging stations

Overview
of EVlink charging stations

EVlink Residential
Standard residential

page 16

Charging stations with or without attached cable

> Power range: 3.7 to 11 kW

> For single-phase and three-phase networks

> **Indoor installation**

> Wall-mounted

EVlink Wallbox
Tough environment, for secure sites

page 20

Water resistant and shockproof charging stations with or without attached cable

> Power range: 3.7 to 7.4 kW

> For single-phase network

> **Outdoor - indoor installation**

> Wall-mounted

EVlink Parking
Tough environment

page 24

Free-access charging stations

> 1 or 2 socket-outlet

> Power range: 7.4 or 22.1 kW

> For single-phase or three-phase network

> **Outdoor - indoor installation**

> Floor-standing or wall-mounted

To connect the car to the charging station

EVlink Cable

Several vehicle connector / plug combinations are available for charging stations.

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Protection and monitoring panels for EVlink Parking charging stations

Standard architectures, turnkey or to be built to Schneider Electric specifications.

Based on protection, metering, automation and communication components.

Suggested applications	EVlink Residential	EVlink Wallbox	EVlink Parking	EVlink Parking RFID	EVlink Fast Charge	Energy Management	Supervision
Private garage indoor	●	●				●	
Private place outdoor		●				●	
Block of flats – underground parking area	●	●				●	●
Block of flats – outdoor parking area		●	●	●		●	●
Public covered parking area		●	●	●			●
On street parking place – no secure				●	●		●
Private corporate parking area		●	●	●			●
Hotel parking area		●	●	●		●	●
Shopping center parking area		●	●	●			●
Fleet parking area		●	●	●	●	●	●
Car sharing parking place				●			●
Gas charging station					●		●

Schneider Electric supports you throughout the project and during exploitation:

Design, implementation and maintenance service offers. Audits and expert analysis.

EVlink Parking (RFID)

Tough environment, user authentication

page 24

Access charging stations with RFID badge

> 1 or 2 socket-outlet

> Power range: 7.4 to 22.1 kW

> For single-phase or three-phase network

> **Outdoor - indoor installation**

> Floor-standing or wall-mounting

EVlink Fast charge

Custom designed for projects only

page 30

Charging stations with or without RFID badge monitoring (wireless, contactless)

> 1 or 2 attached cables

> Direct current power: 60 kW

> Alternating current power: 43 kW

> For three-phase network

> **Outdoor - indoor installation**

> Floor-standing mounting

Savings on costs

Energy and cluster management software

> Management of charging stations clusters

> Energy management

> Data transfer to Supervision

page 38

Enterprise-wide management

Supervision

> Usage analysis

> Maintenance

> Drivers management

page 44

EVlink Residential

In short

Extensive choice

Range of 6 charging stations:

> Wall-mounted

> 3.7 to 11 kW charging

> Without attached cable: T3 socket-outlet

> With attached cable: T1 or T2 connector

Robustness

Mechanical strength: IK08

Indoor installation: IP41

Easy to use

'Plug & charge'

Energy management

The charging power can be automatically reduced by means of a load-shedding device, in order to avoid a black out during the activation of high power priority loads (oven, dish washer...).

Charging operations can be locked in peak hours be mean of an off-peak hours contactor, in order to reduce the cost. When started during off-peak hours, the charging can be maintained or not in peak hours.

Installation

By an installer: a trained electrician

The installer performs an audit of the home's electrical installation, which must be able to withstand without risk the power inrush during charging.

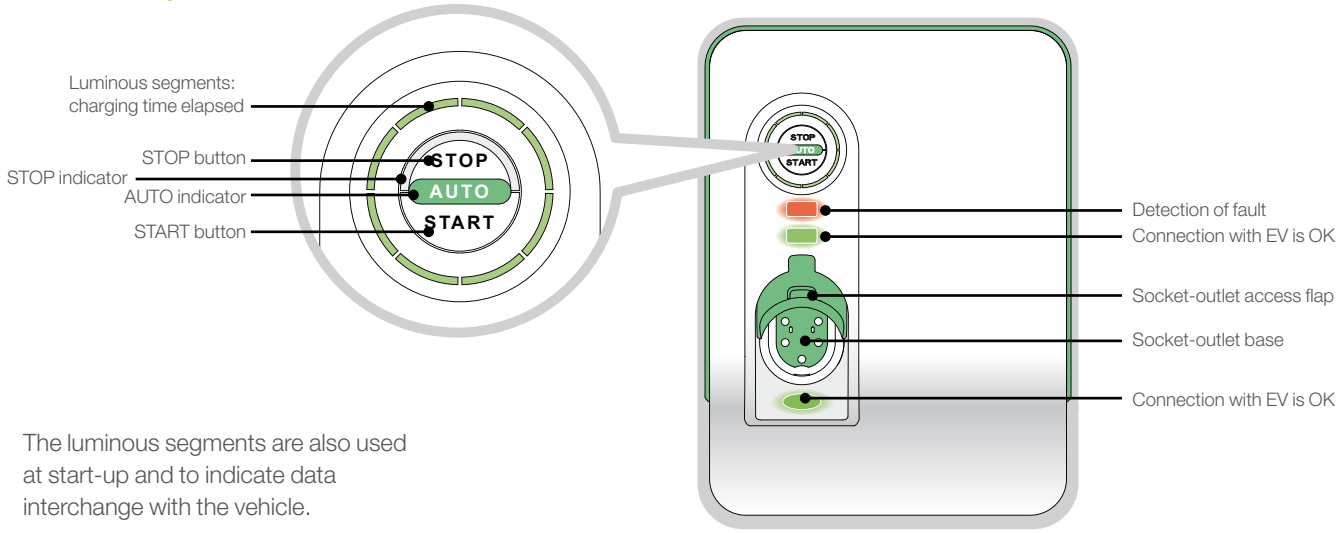
The electrical switchboard is arranged to receive the appropriate protective devices in accordance with electrical regulations.

Complete verification of correct operation using the EV simulation tool.

Application

EVlink Residential charging stations are designed to allow private users to have a charging point dedicated to their electric vehicle: in their garage, integrated into the house or not.

Discovery



The luminous segments are also used at start-up and to indicate data interchange with the vehicle.

3 possible ways to start charging:

1. **Automatic:** immediate, after connection
2. **Deferred:** at defined times, upon information from an 'off-peak hours' contact or a time switch
3. **Forced:** by pressing the 'START' button, without waiting for deferred engagement

3 possible ways to stop charging:

1. **Automatic:** when charging is completed
2. **Early:** at the end of off-peak hours or at the end of the time slot programmed in the time switch
3. **Forced:** by pressing the 'STOP' button without waiting for automatic or early stoppage

The 'Deferred' and 'Early' controls are available after adding an 'off-peak hours' contactor or a time switch.

EVlink Residential

Characteristics

Characteristics of the power supply network

> Frequency: 50 Hz or 60 Hz
> Earthing system: TT or TN
> Voltage required for the power circuit:
- 230 V~ 1P+N for 3.7 and 7.4 kW charging stations
- 400 V~ 3P+N for 11 kW charging stations
> Voltage required for the monitoring circuit: 230 V~ 1P+N
(Supply can be diverted from the main power cable)

Charging characteristics

> Mode 3 with T3 socket-outlet or attached cable with T1 or T2 connector
> Communication between charging station and vehicle via charging cable as per IEC 61851

Safety:

> Vehicle earthed during charging
> Charging current limiting according to the capacity of the weakest element of the charging system (vehicle, charging cable, charging station)
> Charging station switching to fault mode upon a charging cable or network problem

Mechanical and environmental characteristics

> Material: polycarbonate
> Degree of protection (as per IEC 60529): IP41
> Degree of mechanical protection (as per IEC 62262): IK08

Charging station type	Total weight	Dimensions (H x L x D)
Charging station without attached cable	2.5 kg	323 x 242 x 100 mm
Charging station with attached cable	5 kg	

Environment	
Working temperature	-25°C / +50°C
Storage temperature	-50°C / +80°C
Relative humidity rate (RH)	< 93%

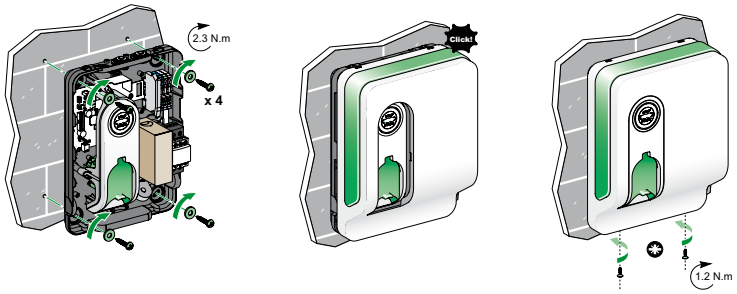
EVlink Residential allows the implementation of a 'ZE Ready' installation subject to setup in accordance with Renault's instructions and performed by an accredited professional.

Certification

EVlink Residential has obtained the CB test certificate issued by the LCIE test laboratory, establishing compliance with the IEC 61851-1 and IEC 61851-22 standards.

Easy to install

Surface mounting, arrival of the power supply duct at the bottom of the housing.



Commercial references

Residential charging stations

Marketing	Socket-outlet or connector type	Power (kW)	Supplied with circuit breaker (1)	Ref.
With socket-outlet				
Available in France only	T3	3.7	yes	**NCA11130**
		7.4	yes	**NCA11230**
International	T3	3.7	no	**NCA19130**
		11	no	**NCA19330**
With attached cable (2)				
International ex France	T1	3.7	no	**NCA11100**
	T2	11	no	**NCA19310**

(1) 30 mA residual current circuit breaker, rating according to charging station power.
(2) Cable holder included.

To connect the car to the charging station

EVlink Cable

Several vehicle connector / plug combinations are available for charging stations.

Please refer to page 35

Electric vehicle simulation tool

It allows complete verification of satisfactory operation of the charging station and charging cable, in the field.

Reference: NCA93100

Cable holder

It allows the cable to be wound up for easy storage.
It is installed on the wall.

Reference: NCA00100

EVlink Wallbox

In short

Extensive choice

Range of 6 charging stations:

> Charging power: 3.7 or 7.4 kW under 230 V~

> Without attached cable: T3 socket-outlet

> With attached cable: T1 or T2 connector

Robustness

Mechanical strength: IK10

Indoor or outdoor installation: IP54

Easy to use

Incorporated cable holder

'Plug & charge'

Energy management

The charging power can be limited (from 3.7 to 2.3 kW and from 7.4 to 3.7 kW) by closing a contact wired to the charging station.

This can be achieved by mean of a time switch, during peak hours or a load shedder to deal with power constraint in the building.

Installation

By an installer: a trained electrician
The installer performs an audit of the home's electrical installation, which must be able to withstand without risk the power inrush during charging.

Ensuring that the charging station has a dedicated power supply from the switchboard with the appropriate MCB and RCD in accordance with standards.

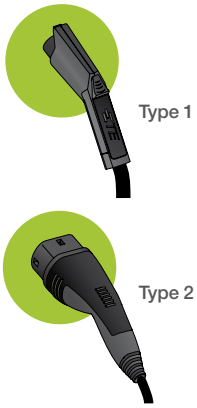
Complete verification of correct operation using the EV simulation tool.

Application

The charging stations are weatherproof and robust therefore can be used in tough environments: At home, at work, in a public covered car park, hotels...

Discovery

Charging station with attached cable



Charging station with socket-outlet

Lighting indications

Stand-by mode

In this mode, either the charging cycle will start automatically as soon as the vehicle is connected and ready for charging, or the battery is fully charged.

Charging in progress

In this mode, the charging cycle can be interrupted by depressing the Stop / Start pushbutton.

Charging interrupted

Manually with the pushbutton.
In this mode, the charging cycle can re-activated by depressing the Stop / Start pushbutton.

Fault detection

The pushbutton must be depressed for five seconds to select the diagnostic mode.

Diagnostic

Alternated colors indicate the type of fault detected.

EVlink Wallbox

Characteristics

Characteristics of the power supply network

> 230 V~ 1P+N

> 50 or 60 Hz

> Earthing system: TT or TN

Charging power control circuit

Contact to be closed between the charging station and the power supply phase.

Charging characteristics

> Mode 3 with T3 socket-outlet or attached cable with T1 or T2 connector

Mechanical and environmental characteristics

> Material: polycarbonate

> Degree of protection (as per IEC 60529): IP54

> Degree of mechanical protection (as per IEC 62262): IK10

Charging station type	Total weight	Dimensions (H x L x D)
Charging station without attached cable	4.8 kg	480 x 330 x 170 mm
Charging station with attached cable	6.4 kg	480 x 330 x 170 mm
Attached cable length: 4 m		

Environment	
Working temperature	-30°C / +50°C
Storage temperature	-40°C / +85°C

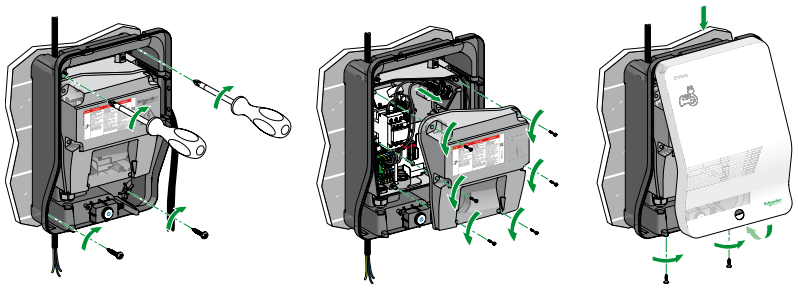
Certification

EVlink Wallbox has obtained the CB test certificate issued by the LCIE test laboratory, establishing compliance with the IEC 61851-1 and IEC 61851-22 standards.

EVlink Residential allows the implementation of a 'ZE Ready' installation subject to setup in accordance with Renault's instructions and performed by an accredited professional.

Easy to install

Surface mounting, the power supply can be at the bottom or top of the housing.



The cover is removed before cabling

Commercial references

EVlink Wallbox

Marketing	Socket-outlet or connector type	Power (kW)	Ref.
With socket-outlet			
	T3	3.7	**EVH1S3P03**
		7.4	**EVH1S7P03**
With attached cable			
	T1	3.7	**EVH1S3P0A**
		7.4	**EVH1S7P0A**
	T2	3.7	**EVH1S3P0C**
		7.4	**EVH1S7P0C**

To connect the car to the charging station

EVlink Cable

Several vehicle connector / plug combinations are available for charging stations.

Please refer to page 35

Electric vehicle simulation tool

It allows complete verification of satisfactory operation of the charging station and charging cable, in the field.

Reference: NCA93100

EVlink Parking

In short

Extensive choice

Range of 32 charging stations:

> Floor-standing or wall-mounted

> 7.4 to 22.1kW

> T2 or T3 socket-outlet

> 1 or 2 socket-outlet per charging station

> With or without RFID badge reader, for user identification

Robustness

Mechanical strength, IK10

Indoor and outdoor use

High IP level: IP54

Supplement

Independent charging stations: simplified automation

Grouped charging stations: common **energy management functionalities, supervision on web pages**

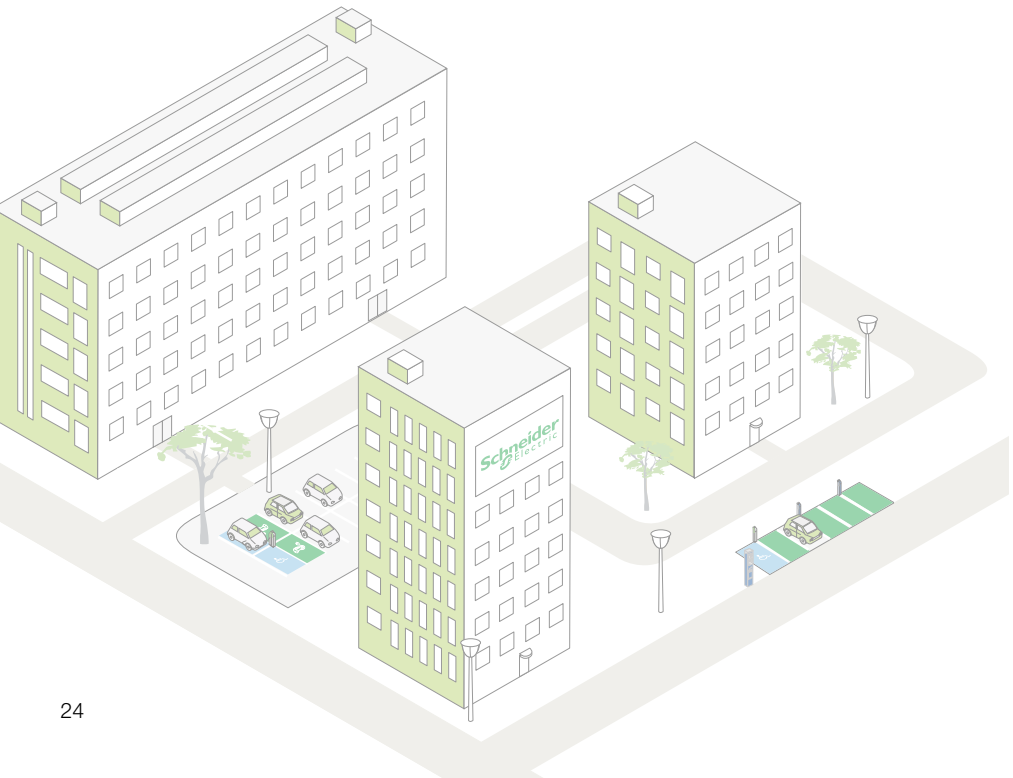
Installation

By a single person: a trained electrician

The charging station is delivered in three packages for easier handling and installation.

The electrical switchboard is adapted or created to ensure the optimal level of protection and monitoring on the charging stations.

Complete verification of correct operation using the electric vehicle simulation tool.



Application

The EVlink Parking charging station product range is designed to meet the requirements of secure parking areas (closed, with filtered access, or under surveillance):

Parking areas of:

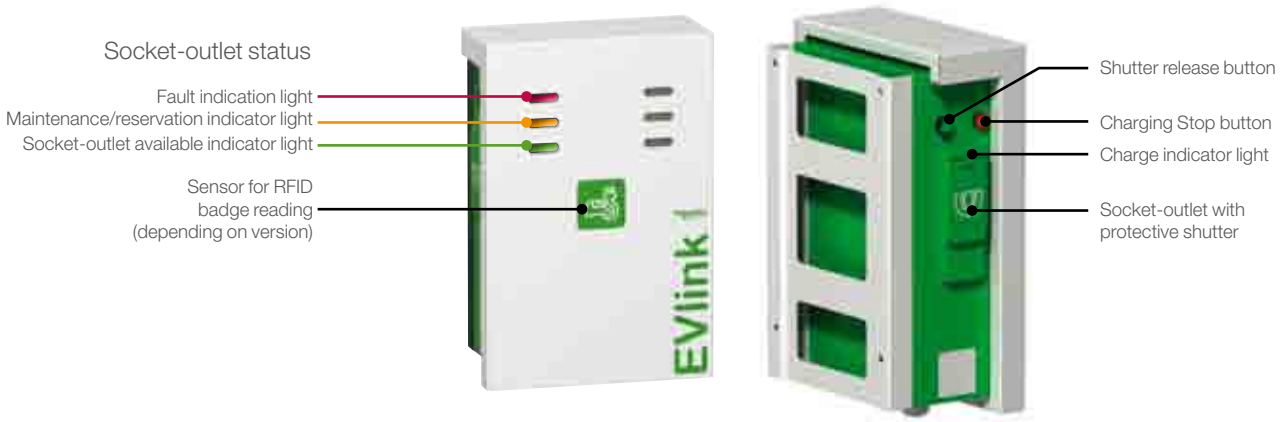
- companies

- fleets

- car lease, etc

The charging stations can be installed **outdoors** or **indoors.**

Discovery



Independent charging stations

One or more charging stations can be connected to the same protection panel but operate completely independently via their own on-board control functions:

> Automatic charging safety controls

> RFID access control to charging (depending on version)

> etc

The protection panel may be that of a building.

Clustered charging stations

Advanced control functions:

> EVlink Energy management

> EVlink Supervision

are accessible when the charging stations are clustered.

They are then under the control of a programmable logic controller and network components: switch, GPRS modem, etc.

These components are brought together in a protection, monitoring and control panel dedicated to the set of charging stations.

A set consists of floor-standing and/or wall-mounted charging stations, up to 30 socket-outlets.

EVlink Parking

Characteristics

The appearance may be customized on request.

Please don't hesitate to contact your Schneider Electric representative to assist you in this project.

CE Green Premium™ Product

EVlink Parking allows a 'ZE Ready' installation subject to setup in accordance with Renault's instructions and performed by an accredited professional.

Characteristics of the power supply network

> Frequency: 50 Hz or 60 Hz

> Earthing system: TT or TN

> Power circuit voltage (provide for 1 charging point):
- 230 V~ 1P+N for 7.4 kW charging stations
- 400 V~ 3P+N for 22.1 kW charging stations

> Control circuit voltage (provide for a specific circuit): 230 V~ 1P+N

Safety:
Each circuit must have upstream protection against overloads, short circuits and insulation faults.

Charging characteristics

> Mode 3 with T3 or T2 socket-outlet

> Communication between charging station and vehicle via charging cable as per IEC 61851

Safety:

> Vehicle earthed during charging

> Charging current limiting according to the capacity of the weakest element of the charging system (vehicle, charging cable, charging station)

> Charging station switching to fault mode upon a charging station or charging cable or network problem

RFID reader (depending on model)

> Access to the socket-outlet by unlocking the flap after wiping the badge in the reader

> Frequency of reading and writing: 13.56 MHz

> Compatible with badges to ISO 15693 and ISO 14443 A and B standards

> 10 badges supplied with each charging station equipped with a reader

Mechanical and environmental characteristics

> Material: painted steel, with corrosion protection treatment on covers

> Degree of protection (as per IEC 60529): IP54

> Degree of mechanical protection (as per IEC 62262): IK10

Charging station type	Total weight	Dimensions (H x L x D)
Floor-standing charging station	43.5 kg	1 425 x 330 x 200 mm
Wall-mounted charging station	25.7 kg	460 x 330 x 165 mm

Environment	
Working temperature	-25°C / +50°C
Storage temperature	-40°C / +80°C
Relative humidity rate (RH)	< 95%
Maximum altitude	2 000 m

Certification

EVlink Parking has obtained the CB test certificate issued by the LCIE test laboratory, establishing compliance with the IEC 61851-1 and IEC 61851-22 standards.

Commercial references

Floor-standind charging stations

EVF1S7P0•
One socket-outlet charging station.

EVF1S7P2•R
Two socket-outlet charging station (possibility to charge 2 vehicles simultaneously), with RFID reader.

Charging station type	No. of socket-outlet	Socket-outlet type	Power	
			7.4 kW	22.1 kW
Plug & Charge - without RFID reader				
	1	T2	EVF1S7P02	EVF1S22P02
		T3	EVF1S7P03	EVF1S22P03
	2	T2	EVF1S7P22	EVF1S22P22
		T3	EVF1S7P33	EVF1S22P33
With RFID reader				
	1	T2	EVF1S7P02R	EVF1S22P02R
		T3	EVF1S7P03R	EVF1S22P03R
	2	T2	EVF1S7P22R	EVF1S22P22R
		T3	EVF1S7P33R	EVF1S22P33R

Wall-mounted charging stations

EVW1S7P0•
One socket-outlet charging station.

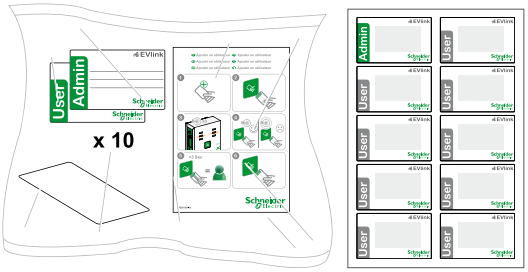
EVW1S7P2•R
Two socket-outlet charging station (possibility to charge 2 vehicles simultaneously), with RFID reader.

Charging station type	No. of socket-outlet	Socket-outlet type	Power	
			7.4 kW	22.1 kW
Plug & Charge - without RFID reader				
	1	T2	EVW1S7P02	EVW1S22P02
		T3	EVW1S7P03	EVW1S22P03
	2	T2	EVW1S7P22	EVW1S22P22
		T3	EVW1S7P33	EVW1S22P33
With RFID reader				
	1	T2	EVW1S7P02R	EVW1S22P02R
		T3	EVW1S7P03R	EVW1S22P03R
	2	T2	EVW1S7P22R	EVW1S22P22R
		T3	EVW1S7P33R	EVW1S22P33R

EVlink Parking

Commercial references

Pack of 10 RFID badges

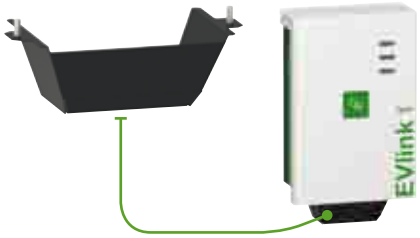


For charging stations equipped with a RFID reader. The badges are supplied blank, ready to be programmed to identify an administrator or user.

Sheet of labels to be stuck on the badges:
1 administrator + 9 users.

Reference: **EVP1BNS**

Protective cover



For wall-mounted charging stations.

It locks user access to incoming cables.

Degree of protection: IK10

Reference: **EVP1WPSC**

Cable holder

For floor-standing and wall-mounted EVlink Parking charging stations.

It allows the cable to be wound up for easy storage.

Reference: **EVP1PH**

EVlink Cable

Several vehicle connector / plug combinations are available for charging stations.

Please refer to page 35

Electric vehicle simulation tool

It allows complete verification of satisfactory operation of the charging station and charging cable, in the field.

Reference: **NCA93100**

Specific components for monitoring and control panel

Software on SD card for Modicon M340 PLC.

EVlink Energy & Cluster Management Software
Reference: **NCA82000**

EVlink Cluster Management Software
Reference: **NCA84000**

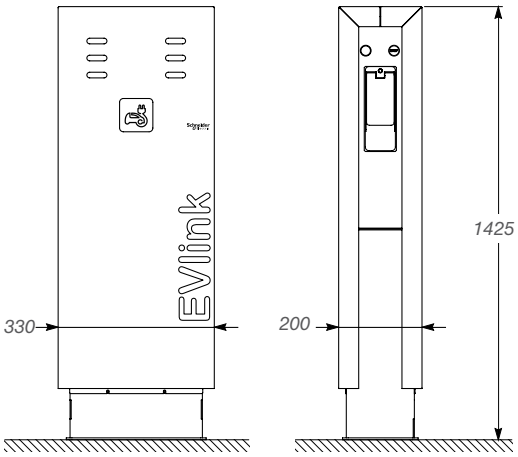
Wireless–internet communication interface, supplied with its accessories.

EVlink Supervision GPRS modem
Reference: **NCA91000**

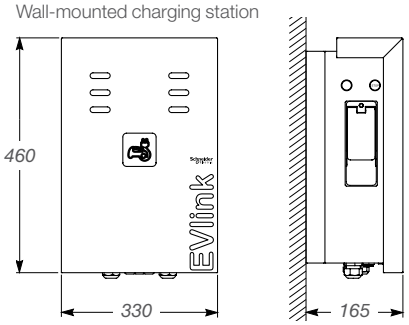
Practical information

Dimensions (mm)

Floor-standing charging station

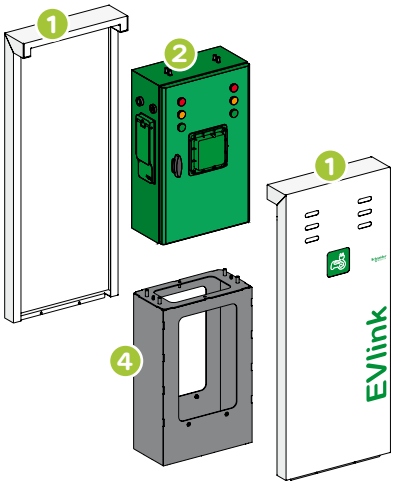


Wall-mounted charging station

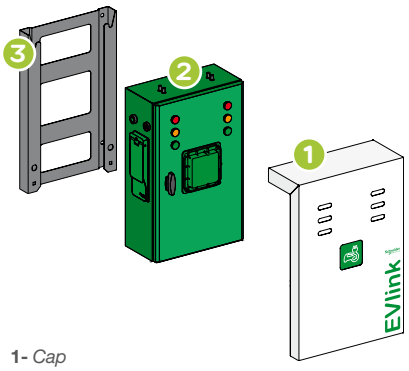


Composition

Floor-standing charging station



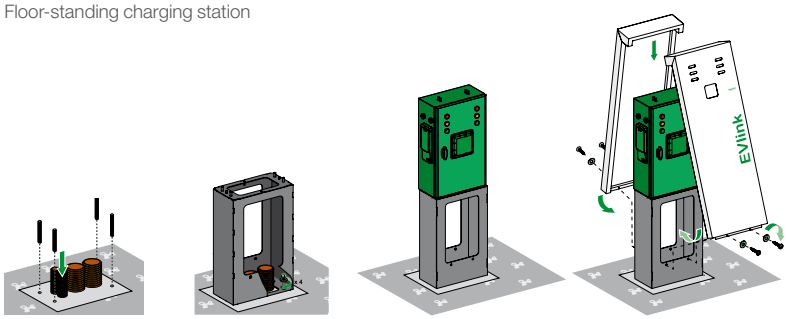
Wall-mounted charging station



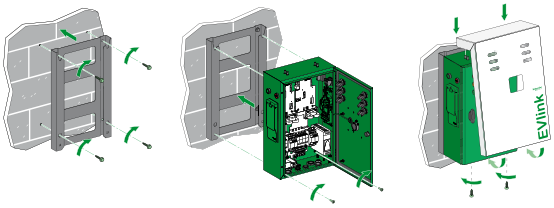
1- *Cap*
2- *Core of charging station*
3- *Wall base*
4- *Floor base*

Easy to install

Floor-standing charging station



Wall-mounted charging station



EVlink Fast Charge

In short

The choice

Range of fast charge stations

> Standard or with additional equipment

> 500 V direct current and/or 400 V alternating current

Cover structure

Mechanical strength, IK10

Indoor and outdoor use

High IP level: IP54, charged and uncharged

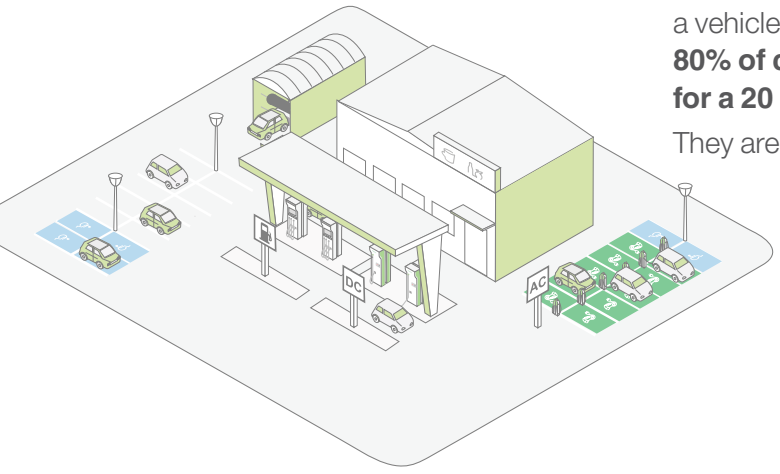
Installation

The charging stations are designed for facilities such as service stations and parking areas for business vehicle fleets.

A **feasibility study** must be carried out to assess the facility's ability to provide the necessary power, identify electrical duct routing, etc.

A **protection and monitoring panel** is arranged in an existing panel or created to ensure the optimal level of protection and monitoring for the charging station.

Application



EVlink Fast Charge stations are designed to charge a vehicle rapidly:
80% of capacity charged in 30 minutes, for a 20 kWh battery.

They are intended for service stations in particular.

Characteristics

Mechanical and environmental characteristics

> Degree of protection (as per IEC 60529): IP54

> Charging station dimensions (H x L x D): 2080 x 1070 x 662 mm

> Working temperature: -30°C / +50°C

> Weight: approx. 700 kg

Characteristics of the range

Direct current charging station

> Charging in mode 4

> CHadeMO type connector

> Charging voltage/current: 500 V DC / 120 A

> Power supply: 400 V~ (+10/-15%) – 80 A – 3 Ph – 50-60 Hz

> Electrical protective devices integrated into the charging station

Direct current + alternating current charging station

> Charging in mode 4 and mode 3

> Direct current charging:
- CHadeMO type connector
- charging voltage/current: 500 V~ / 120 A

> Alternating current charging:
- Type 2 connector
- charging voltage/current: 400 V~ / 63 A

> Electrical protective devices integrated into the charging station

Cable length: 3 m

Additional functionalities available

> Strengthened screen

> Subscriber badge reading

User dialogue and data

> 5.7' backlit touch-sensitive LCD screen for display of the residual charge and to enter the charge set point value (duration, number of kWh, euros)

> Charge management
- charge according to the amount in your local currency, charging time or kWh requested
- connector locking during charging

> Data supplied on Ethernet port

> Data transmission
Operating data, status, activation/deactivation of the charging station, etc

Commercial references

Charging stations	500 V DC	500 V DC + 400 V~
Fast charging stations		
Standard	*Please contact us*	
Charging stations with special equipment		
Strengthened screen	*Please contact us*	
RFID badge reader		
Strengthened screen + RFID badge reader		

Electric vehicle simulation tool

In short

Tool of the trained electrician

To check **correct operation** of a charging station

> EVlink Residential

> EVlink Parking

> Any charging station complying with IEC 61851-1, by simulation of a vehicle during charging

'All-terrain' use

Robustness

> IK strength: IK8

> Resists falls of up to 1 m

> IP54: closed

> IP44: open

Easy to carry

> Weight: 6 kg

Compatibility

Accepts any cable fitted with a **T1 or T2 connector**

Single-phase or three-phase alternating current charging

In complete simplicity...

Simulation tool connected, charging started by pressing a button, the result is visible on an indicator lamp. **A few minutes** to check correct operation of a charging station.

... and full independence

Power supply via the charging cable

No internal battery, **the length of servicing operations is not limited.**

Application

The simulation tool is used to check the right charging process without an electric vehicle and with a current < 1 A.
The tests are valid on EVlink charging stations and all those operating in mode 3 or simplified mode 3 complying with the IEC 61851-1 standard.

> Test on the electrical installation and wiring upstream of the charging station (detection of absence of neutral or phase-neutral inversion)

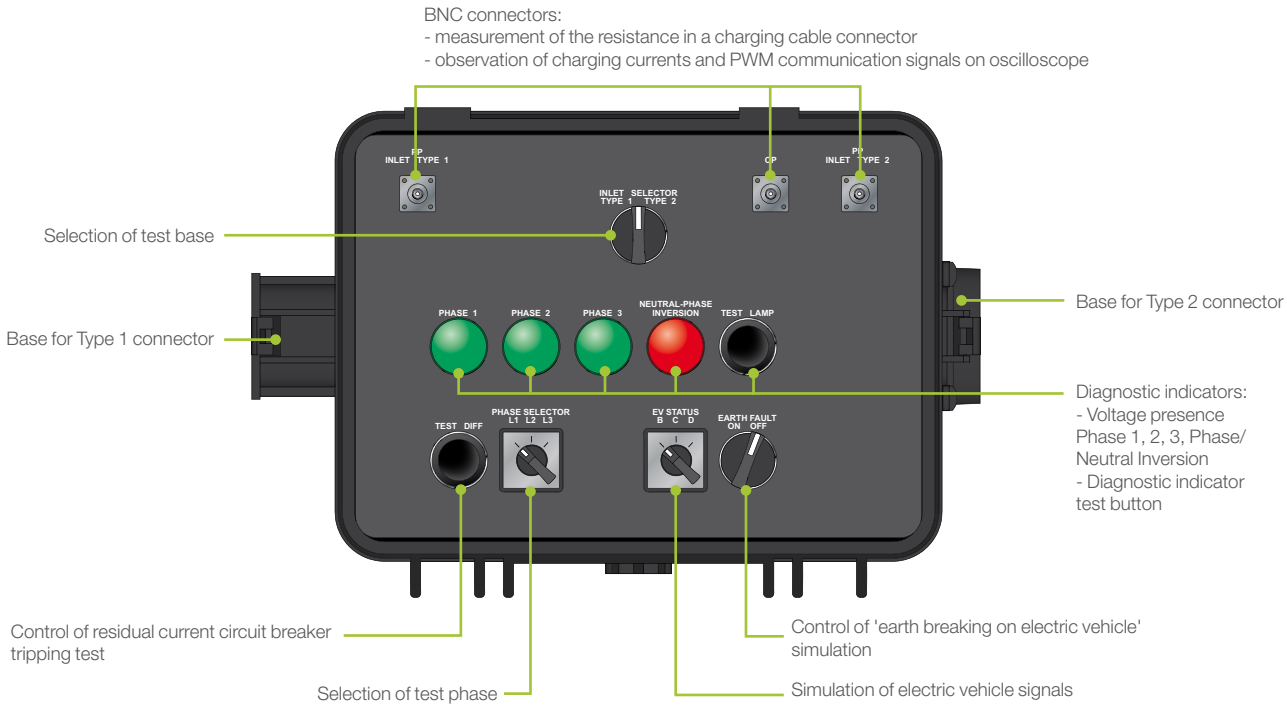
> Test on tripping of the residual current circuit breaker for each charging station phase

> Check on the strength of the customer's charging cable connector

> Check on the charging-cable pilot wire and check on the charging station by simulation of the various standardized statuses of an electric vehicle

> Test on the charging station contactor upon the triggering of charging by communication signals

Discovery


BNC connectors:
- measurement of the resistance in a charging cable connector
- observation of charging currents and PWM communication signals on oscilloscope
Selection of test base
Base for Type 1 connector
Base for Type 2 connector
Diagnostic indicators:
- Voltage presence Phase 1, 2, 3, Phase/ Neutral Inversion
- Diagnostic indicator test button
Control of residual current circuit breaker tripping test
Selection of test phase
Control of 'earth breaking on electric vehicle' simulation
Simulation of electric vehicle signals
PP INLET TYPE 1
CP
PP INLET TYPE 2
INLET TYPE 1 SELECTOR TYPE 2
PHASE 1
PHASE 2
PHASE 3
NEUTRAL-PHASE INVERSION
TEST LAMP
TEST DIFF
PHASE SELECTOR L1 L2 L3
EV STATUS B C D
EARTH FAULT ON OFF

Safety during the tests

> The signals generated by the simulator comply with the IEC 61851 standard

> Load current in the simulator limited to the minimum value allowing complete validity of the tests

> Charging station switching to secure mode in the event of problems on the upstream network or the charging cable

Electric vehicle simulator

Characteristics

Electric vehicle simulator

It allows complete verification of satisfactory operation of the charging station and charging cable, in the field.

Reference: NCA93100

Green Premium™ Product

EVlink Cable

Several vehicle connector / plug combinations are available for charging stations.

Please refer to page 35

Characteristics of the power supply network

> The simulator is powered via the charging current
> Network frequency: 50 Hz or 60 Hz
> Earthing system: TT or TN (do not use in IT)
> Voltages:
- 230 V~ on type 1 connector
- 400 V~ on type 2 connector

> Charging current during test < 1 A

Mechanical and environmental characteristics

> Degree of protection (as per IEC 60529):
- closed: IP54
- open: IP44

> Degree of mechanical protection (as per IEC 62262): IK8
> Dimensions (H x L x D): 270 x 305 x 170 mm
> Weight: 6 kg
> Left-hand base:
Type 1 inlet • IEC 62196 type 1 • U: 230V1 • I: < 1 A • F: 50-60 Hz
> Right-hand base:
Type 2 inlet • IEC 62196 type 2-II • U: 400V3~ • I: < 1 A • F: 50-60 Hz
> Storage temperature: -30°C / +50°C
> Working temperature: -30°C / +50°C
> Risk of damage to the simulator in the event of dropping at a temperature < -2°C
> Relative humidity rate (RH): < 95%

Accessories and documentation included

> Plasticized User's Manual attached under the cover
> Detailed user manual (to be downloaded from the web)
> BNC/banana plug adapter cord

Certification

> The electric vehicle simulator complies with the IEC 61010-1 and IEC 61851-1 standards

Recommended measuring instruments for additional tests

> **Ohmmeter:** to measure the resistance in the customer's cable connector.
> **Oscilloscope:** for observation of signals during the electric vehicle status simulation test (signals in accordance with the IEC 61851 standard)

EVlink Cable

Characteristics

Type 1 (T1)

Type 2 (T2)

Type 3 (T3)

CE

The charging cable is a key component

Great attention was paid to design, quality of components and assembling in order prevent from overheating during charging operations.
Quality of the plug and connector and of the cable itself, as well as the quality of the assembly.

Main characteristics

> Charging station plug type: T3
> Vehicle connector types: T1 or T2
> Charging mode: Mode 3
> Variant: 1 or 3 phases
> Maximum current: 32 A
> Length: 5 m
> Type of cable: straight
> Operating temperature: -30°C +50°C
> Degree of protection (as per IEC 60529): IP44
> Degree of mechanical protection (as per IEC 62262): IK10

Certification

> EVlink Cable has obtained the CB test certificate issued by the LCIE test laboratory
> CE compliant

		1 phase	3 phases	Max. current	Weight	Ref.
T3	T2	●		32 A	2.5 kg	**EVP1CNS32132**
	T2		●	32 A	3.2 kg	**EVP1CNS32332**
	T1	●		32 A	2.4 kg	**EVP1CNS32131**

Cable holder

Compatibility	Ref.
For EVlink Parking charging station	**EVP1PH**
For EVlink Residential charging station	**NCA00100**

To be mounted on top of the charging station. 1 cable can be rolled on each side.

Reference: EVP1PH

Reference: NCA00100

EVlink
ABC
express

Managing the energy of a charging station

EVlink Energy Management

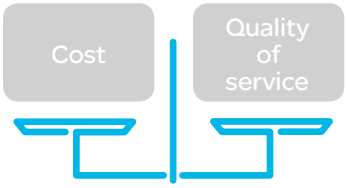
Energy management stakes

Energy management. Why ?

Reduce investments and operating costs
Energy management involves constantly optimizing the quality of service rendered by electrical equipment according to the criteria of:

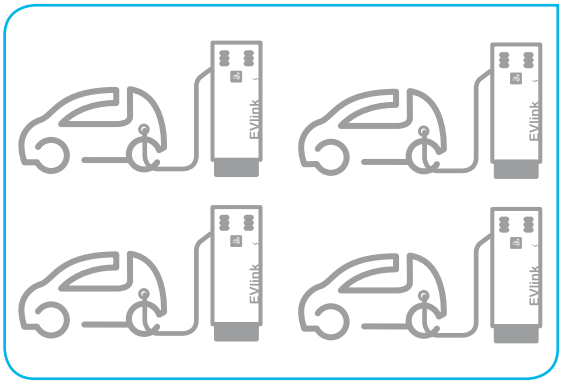
– continuity of service, taking into account the maximum capacity of the installations;

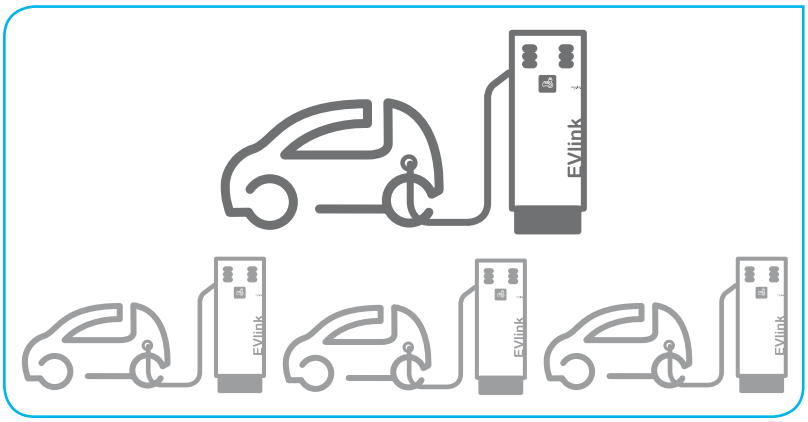
– operating cost, taking into account the price structure of the energy supplier.



And for a charging station, in particular?

Allowing **simultaneous charging** of the largest number of vehicles, as quickly as possible...



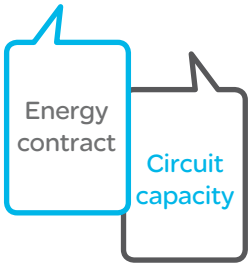


... while maintaining **charging priority privileges**, if necessary.

How to implement energy management?

Power limit

The **'power subscription'** with the energy supplier, or the maximum capacity of the power supply (depending on the cross section of cables, the rating of circuit breakers, etc.).

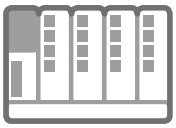


Measurements

The total power demand, each charging point demand.

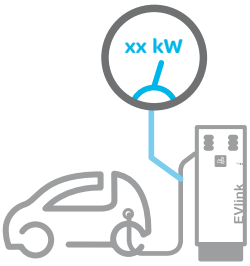
Controller

The controller performs data acquisition and run the algorithms to control total demand and power allocation to the vehicles.



Actuators

The charging stations that can execute an order and temporarily limit the current supplied to the vehicle.



In other words, energy management:

Avoids disrupting the facility, causing operating losses

When a large number of devices in the facility and the charging station are operating simultaneously, the total current is limited and does not risk causing a facility black-out.

Reduce energy and electrical infrastructure costs

The contract is subscribed to for a capacity less than that of the total loads.

The power demand is limited and does not risk leading to overrun penalties or extra costs to bolster the facility's power supply and distribution network.

Increases driver satisfaction

Each charging station always supplies the maximum available energy. Valid on all the station's charging points, VIP badges provide charging priority advantages for sales reps or customers.

Makes operations more efficient

Each socket-outlet is defined with a maximum power, to allow for its use and location.

The list of authorized badges is centralized to save time for updates.

Charging station fed by the facility network

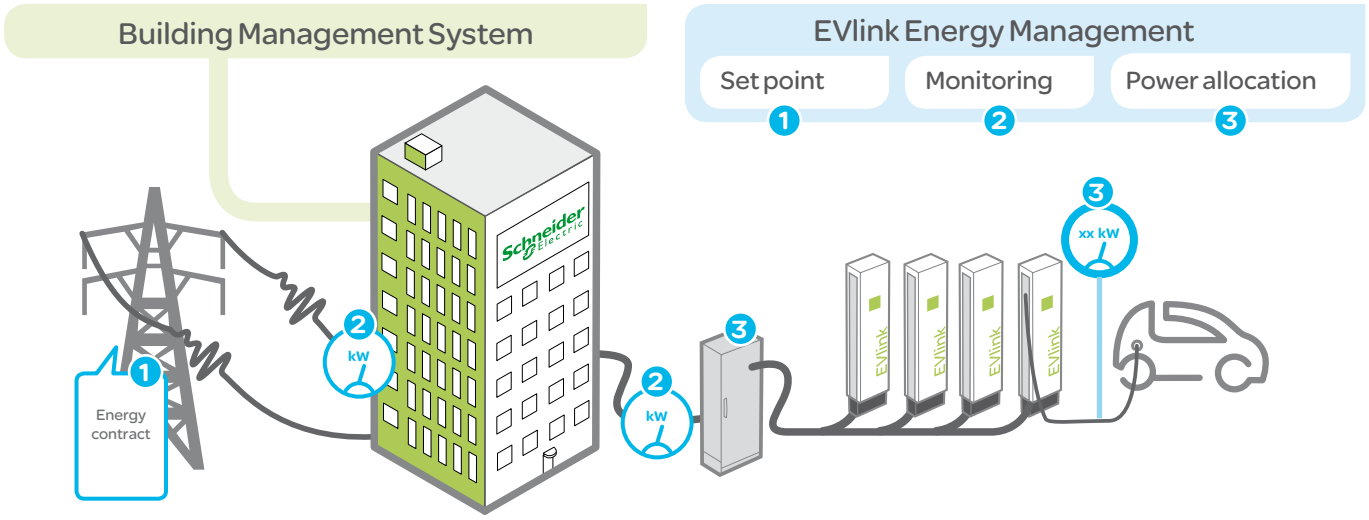
This is the case for charging stations whose administrative and technical management are grouped together with that of a facility. An example is a company with a fleet of vehicles.

Overall energy management (facility + station) is recommended, in particular when the maximum power of the charging station (simultaneous use of all socket-outlets at full power) is significant by comparison with that of the facility.

Building automation and EVlink Energy Management, complementary systems

In buildings, automatic control systems supervise total consumption and adapt the operation of certain devices to optimize consumption and consumption costs without adversely affecting work efficiency and occupants comfort.

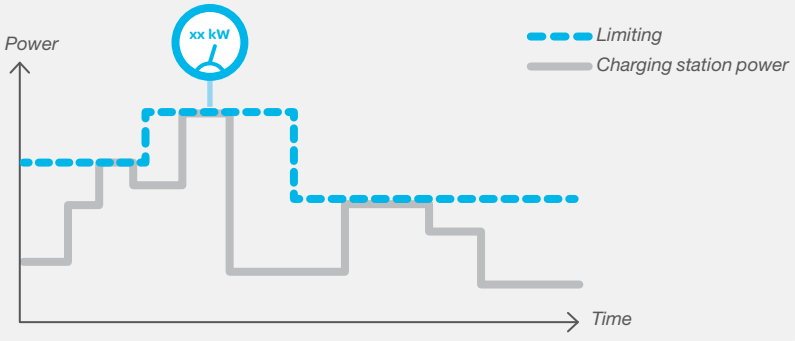
The total consumption and that of the charging station are constantly transmitted to the charging station's controller. When this value approaches the limit set by the energy contract, the EVlink Energy Management program sends the charging stations an order temporarily limiting charging. Accordingly, the power demand from the charging stations is that actually available, not exceeding the utility contract or the power distribution capacity.



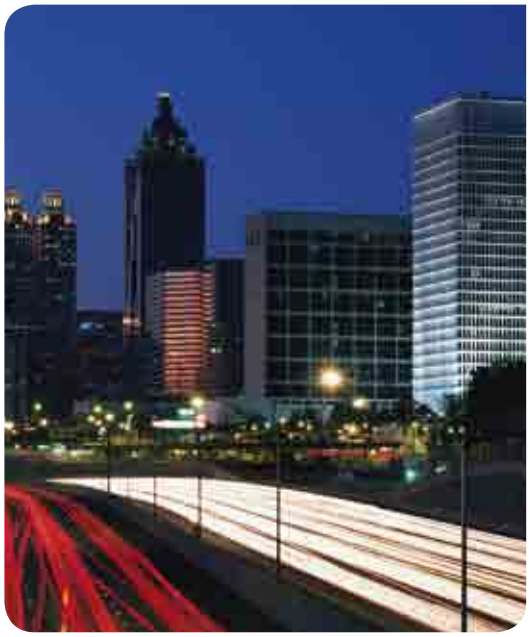
1. Selecting maximum power.
2. Metering the facility and charging stations consumptions.
3. Real time algorithms to allocate power to Electric Vehicles.

Power monitoring

'Dynamic power allocation':
EVlink Energy Management maximum power set point is calculated real time.



Charging station directly fed by the utility grid



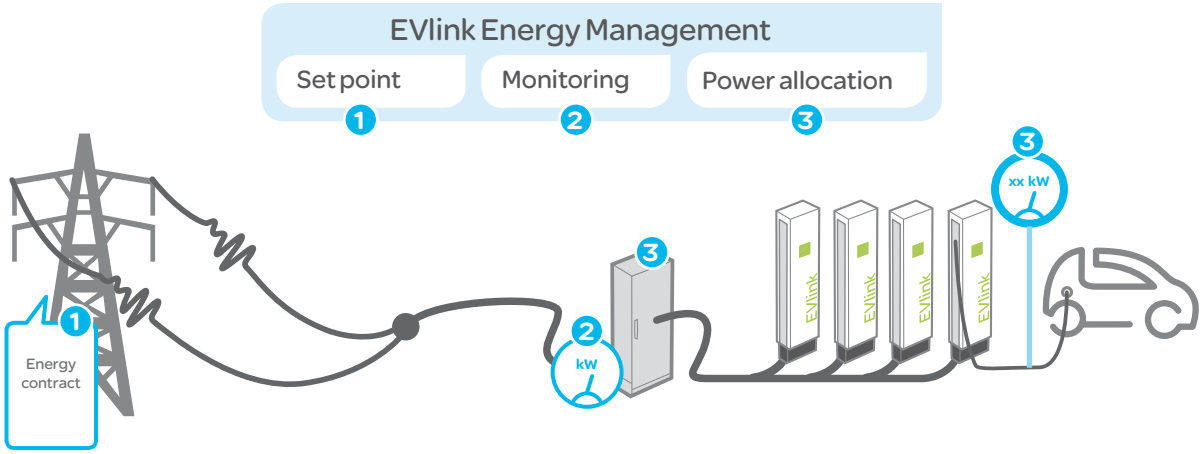
The charging station's energy is supplied directly by the electricity distribution system. The installation includes a power meter and a circuit breaker set to the subscribed demand.

This case generally applies to parking charging stations for which management is independent from a facility. Energy management is systematically recommended to optimize capital costs and energy supply subscription costs.

EVlink Energy Management, for compliance with the energy contract

In the protection and control panel, EVlink Energy Management program loaded in the controller ensures energy management.

The maximum power set point parameter is configured at commissioning, together with the charging points power allocation scenario (see description on next page).
The controller constantly monitors the charging station's total power. Based on this information, and if necessary, it can at any time activate or cancel charging station power limiting.

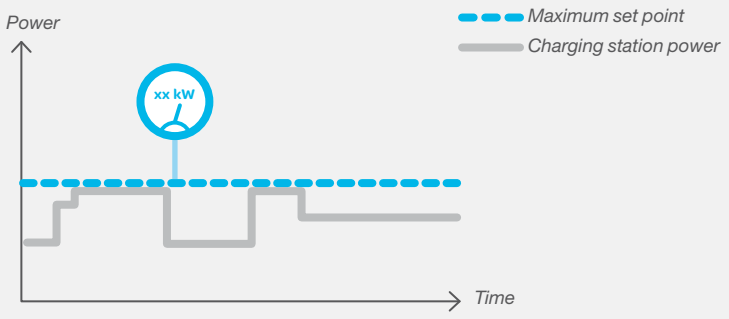


1. Selecting maximum power.
2. Metering the facility and charging stations consumptions.
3. Real time algorithms to allocate power to Electric Vehicles.

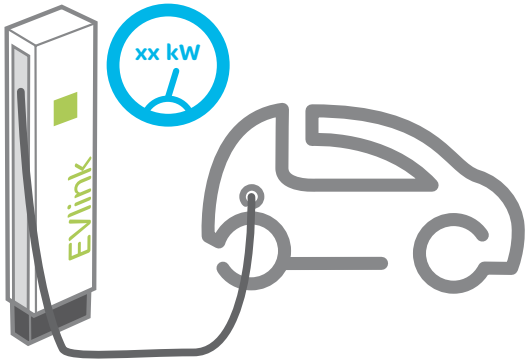
Power monitoring

With **'Static power allocation'** the maximum power set point value is equal to the subscribed demand or any fixed value.

This mode can also be adopted when the charging station is fed by a facility network. In that case the set point depends on the electrical sizing of the charging station's power supply circuit, or operational need.



Charging stations control



Each charging station has the ability to limit its output

As soon as a vehicle is connected, charging can begin, but the output can be automatically limited by the charging station:

> either to comply with constraints of maximum power of the vehicle charger, the charging cable or the charging station;

> or upon an order received from EVlink Energy Management controller and algorithms.

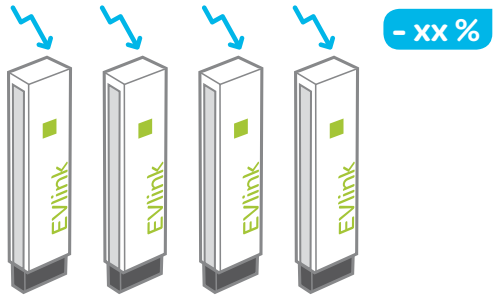
EVlink Energy Management power allocation scenarios

The controller performing energy management can at any time reduce the charging station's power by sending orders to all the charging points. A choice of scenarios is proposed at commissioning, making it possible to take into account varied needs related to the use of the vehicles coming for charging.

Proportional scenario

The output of each charging station is reduced by an identical percentage.

Case of charging stations for vehicles and drivers having equal privileges.



'3 kW priority' scenario

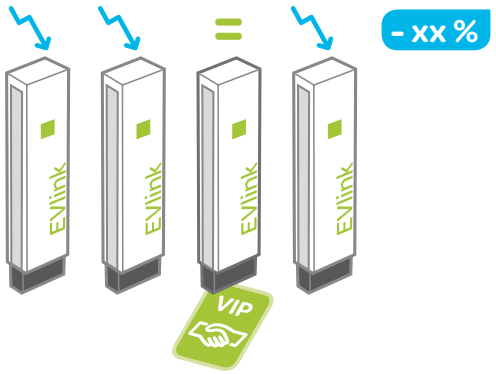
The output of the charging stations with highest power requirement is reduced first.

Case of a charging stations where the strategy is to provide the same quantity of energy to all vehicles in the event of a reduction in the available power.

VIP badge privileges

The station charging a vehicle identified by a priority badge does not apply the requested reduction or only partially.

Case of charging stations with RFID badges authentication. Charging of certain vehicles is not penalized for service reasons or to give priority to customers.



Supervising operations

EVlink Supervision
EVlink Data Access

EVlink Supervision

Supervision of charging stations

EVlink Supervision is a secure operations system...

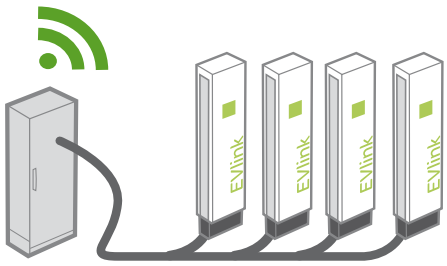
It is designed to allow efficient operation of a network of charging stations:

> centralized remote supervision and management

> real-time management

> directly interpretable display of analysis and statistics

> more efficient maintenance operations.



... for communicating infrastructure

The supervision servers allow operation of an infrastructure consisting of a single charging station cluster or a number of geographically scattered charging stations.

Each charging station exchanges its data via a wireless modem (GPRS).

The operating status, real time meter values and Charge Detail Records can be accessed locally and remotely with a mere web browser.

The freedom and security of Cloud Computing

Schneider Electric has adopted Cloud Computing to collect, store and provide data on the connected charging stations.

Using Cloud Computing, the necessary IT resources (servers, application programs, etc.) are made available in real time via Internet.

> Access is possible from any location via a standard web browser.

> The charging station owner is relieved of capital costs and IT administration costs.

> The data is secure, and is backed up automatically.

> The data for all the charging stations is centralized, and access can be defined by facility, by region or for all installations.

EVlink Supervision: advantages for all stakeholders

Trust in the network of charging stations is **enduring**:

> since problems are detected automatically, the availability of the charging stations is always high;

> updating of badge-related access rights is very fast, and valid simultaneously at all locations.

The management tools are **appropriate**, and also adapted to multi-facility infrastructure

> Complete visibility of the charging stations. Remote controls, activity reports, consumption analysis.

> Maintenance alarms and trouble shooting information.

There is high **reactivity**

in management of authentication badges and consumption reports.

The cost of maintenance **is reduced,**

The charging stations usage information provided enhance:

> customer satisfaction due to an improved understanding of their behaviour

> the quality of action plans and the relevance of reporting;

> the value of analyses to consider infrastructure changes and capital expenditure.

A real 'business' and 'value added' view is possible, thanks to reports allowing cost calculation and data export to your own information systems and customer portals.

EVlink Supervision

Supervising charging stations without constraints of distance

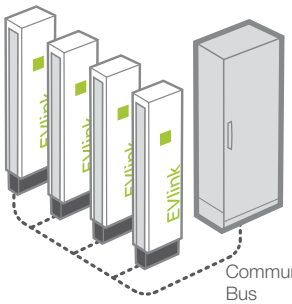
Each charging station collects information from connected charging stations and power meters.

It is connected to the communication networks via a GPRS modem.

Any PC provided with a web browser can obtain access to supervision provided that its user has the necessary access rights. The data exchanges is secured.

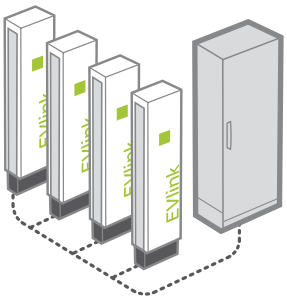
Charging Stations A

Wireless transmission (GPRS)

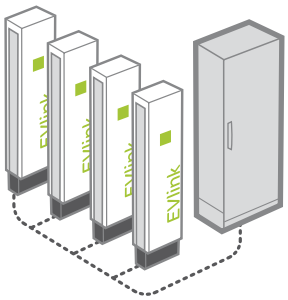


Communication Bus

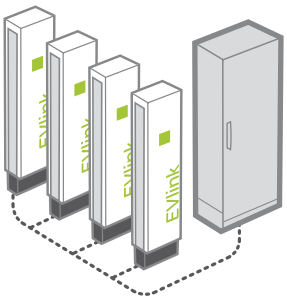
Charging Stations B



Charging Stations C



Charging Stations D



The data and parameters of all the charging stations are stored and archived in dual secure data centres. This information is made available in the form of web pages, files or data streams.

EVlink Supervision features

Supervision

Be informed of the situation of the charging stations, to react

On a geographic map	Check off charging stations and their status: active / faulty
	For each charging station, read the number of charging stations Operational - Charging / Total

Be alerted, charging station by charging station, to perform trouble shooting

On monitoring screen	View alarms, per form drill down
	Know the status of communication with the charging station
On log-book	Consult time-stamped events

Control a charging station remotely

Start/stop charging a vehicle

Reboot the modem

Parameters

Consult operations parameters

Electrical parameters, charging parameters

Consult and edit charging cluster information

Cluster location, site correspondents, etc.

Statistics

Monitor charging stations activity

Overall, by region or profit centre, site by site

On tables or charts, consult per day, week, month, year:

- No. of charges per charging station
- Total max. charging station power
- Cumulative total charging station consumption

Export statistics to Excel files

For specific analysis and reporting

User management

Authorize access via RFID badge

Activate and deactivate badges

Record transactions for each badge

Consult the time-stamped charging log (badge identifier (UID), kWh)

Export operation reports

Download the file of operations for external processing using standard software (Excel, Access, etc.): sorting by period, by user, creation of spreadsheets, etc.

EVlink Supervision

The dashboard for your network of charging stations

For supervision: a clear, customizable dashboard

It covers only the information that is useful each day, grouped by theme in widgets.

A choice of several widgets is displayed simultaneously on the dashboard, while the others can be accessed by scrolling:

> charging station location and status,

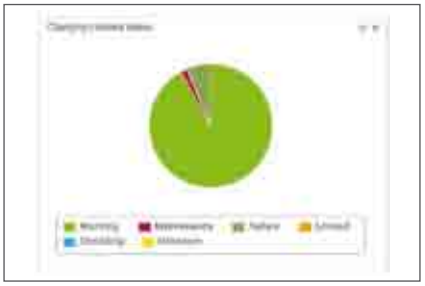
> occupancy indicators…

The user selects only the widget corresponding to his needs and the parameters of each widget allow it to be customized by choosing its periodicity, for example.

A choice of widgets for relevant monitoring, in real time

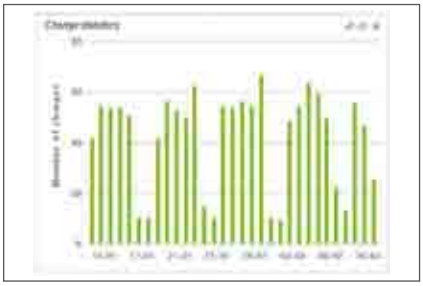
Locating charging stations and their status

For each charging station an indicator displays the number of charging stations operational/ inoperational.



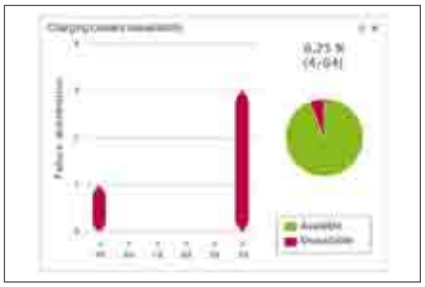
Detailed status of the charging stations

Percentage of charging stations in operation, in load shedding, in maintenance, fault mode.



Charging station occupancy

Number of charges for the selected period.

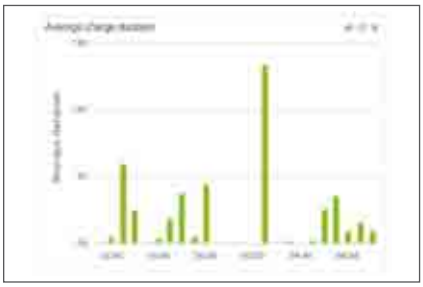


Charging stations availability

Percentage of charging stations available and unavailable, breakdown by duration of unavailability.

Occupancy rate

Charging stations occupancy indicators.

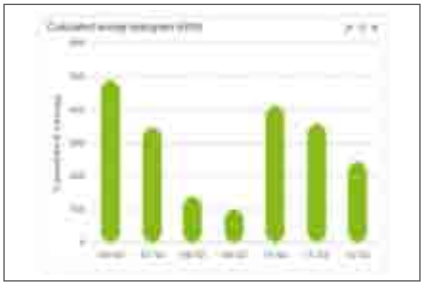


Duration of charges

Average duration of charges diagram.

Cumulative energy

Distributed to vehicles since last reset.

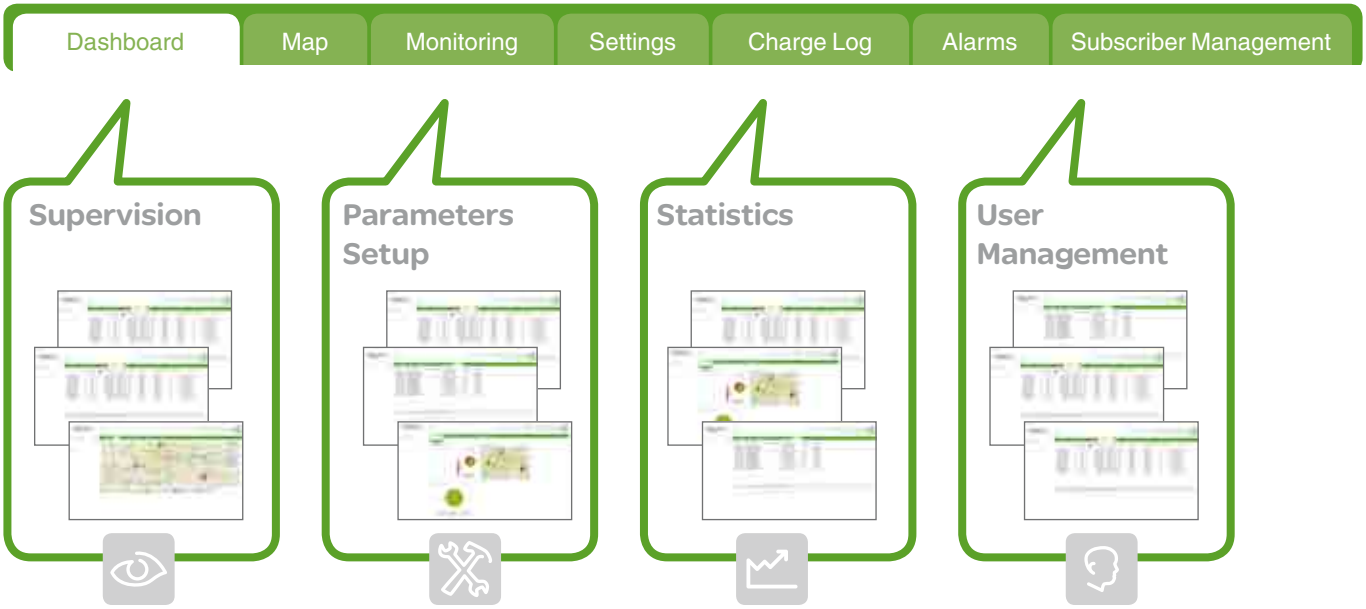


Energy consumed during charges

Statistics per day, per week, per month or per year.

Navigation via tabs

On the dashboard, tabs give access to the areas of operation.



A specific access according to the user

Identification of the EVlink Supervision user is required to protect data and prevent operations that could adversely affect operation of the installations.

The two access levels are differentiated by password:

> **'Site administrator' access:** allows access to all pages and functions, including user management.

> **'Operator' access:** restricted access to 'Supervision', 'Statistics' and 'Parameters Setup' pages and features.

EVlink Supervision

EVlink Supervision subscription

Data collection, access to supervision

By taking out an EVlink Supervision subscription it is possible to benefit from supervision services in 'hosted' mode.

The subscription covers:

> availability of the servers and the EVlink Supervision application

> data collection and storage

> access to the website via a standard web browser, for operation and users management

> GPRS communication

It does not include the GPRS modem, the SIM card, or internet access. Access to the site is multi-station, multi-user (Administrator, Maintenance Department, Sales Department, etc.).

> ***EVlink Supervision***
> *Annual subscription*

Security, confidentiality

Access to the site is protected by password, and each operator has a personalized access and authorizations for consulting and modifying data.

Data communication in accordance with the HTTPS protocol ensures data integrity and confidentiality.

Subscription

The subscription is taken out for a period of one to three years, renewable by tacit agreement.

EVlink Data Access

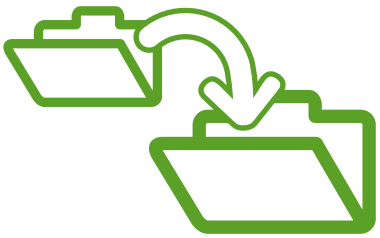
'System to System' data delivery:

Interfacing of EVlink Supervision with management information systems

Parking operators, fleet manager, etc., may want to incorporate operating data from the charging stations in their own information systems.

EVlink Data Access is a web service capable of meeting this need.

> ***EVlink Data Access***
> *Provision of personalized data*



Subscription to data downloading

The required data and their format are defined in cooperation with the customer IT application correspondents.

Solutions for your project

'Turnkey' project
Services for designers and installers
Services for operators

Solutions for your project

Listen
Understand
Propose

Your Schneider Electric correspondent is a professional, specialized in the charging infrastructure market.

Based on the technical and economic data of your charging station project, he will propose to you the most appropriate solution:

> 'Turnkey' charging station project performed by Schneider Electric

> Sale of charging stations and services to qualified professionals with possible support at start-up

> Services, etc.

Preliminary technical audit

It is sometimes necessary to contractualize the solution proposal.

This service is essential when the power of the charging station could jeopardize the electrical infrastructure of an existing facility.

'Turnkey' project

The charging station project is proposed to you in a contractual document

The following are specified:

> precise characteristics of the structure

> schedule of the various project phases and a delivery date

> technical documents submitted for operation and maintenance

> conditions of support services

On the agreed date Schneider Electric will deliver a charging station in operating condition and allowing in-situ training of operating personnel.

The project is entrusted entirely to the Electric Vehicle Centre of Expertise.

A single correspondent for the project team, whatever the subject, commercial or technical.

Energy management and supervision are key to the expertise of project teams

Solutions

> EVlink Energy Management

> EVlink Supervision Energy

are generally included in 'turnkey' projects.

Services for designers and installers

Regulatory aspects, architectures
→ for engineering offices and systems integrators:

Presentation of charging station design rules (safety aspects). Training in standard architectures established by Schneider Electric and components, allowance for profitability and scalability aspects.

Setup, tests, maintenance
→ for installers:

Presentation of charging station components. Training in assembly, operating tests and maintenance procedures. Submission of servicing technical documents.

Services for operators

Technical monitoring:
Constant supervision and diagnosis

Equipped with a permanent link to the data server centre, the charging station is under the control of Schneider Electric specialist technicians.

If any anomaly is detected, an initial diagnosis is performed. The operator is informed, and can be guided for simple restarting operations.

If necessary, the involvement of a partner firm may also be decided on.

Maintenance:
Preserving availability

Schneider Electric has trained and is training a network of local installer-partners.
They contribute to routine maintenance of your charging stations and perform work if necessary.
They have the support of our Customer Care Centres.

Expert appraisal – advice:
Making the most of your charging station

Based on the activity and consumption reports our experts establish an efficiency diagnostic of the installation based on energy cost and equipment availability criteria.

If necessary, operating advice and proposals for technical improvement are submitted.

List of references

EVlink Residential charging station

Characteristics [1]	References
Charging stations with socket-outlet	
3.7 kW – T3 – INT	**NCA19130**
11 kW – T3 – INT	**NCA19330**
3.7 kW – T3– FR (supplied with electrical protection devices)	**NCA11130**
7.4 kW – T3– FR (supplied with electrical protection devices)	**NCA11230**
Charging stations with attached cable and cable holder	
3.7 kW – T1 – INT; cable	**NCA11100**
11 kW – T2 – INT; cable	**NCA19310**
Accessory	
Cable holder, 'Residential' design	**NCA00100**

(1) *Charging station characteristics = Power – Socket-outlet or connector type – INT: international market – FR: French market only.*

EVlink Wallbox charging station

Characteristics [2]	References
Charging stations with socket-outlet	
3.7 kW - T3	**EVH1S3P03**
7.4 kW - T3	**EVH1S7P03**
Charging stations with attached cable	
3.7 kW – T1	**EVH1S3P0A**
7.4 kW – T1	**EVH1S7P0A**
3.7 kW – T2	**EVH1S3P0C**
7.4 kW – T2	**EVH1S7P0C**

(2) *Charging station characteristics = Power – Socket-outlet or connector type.*

EVlink Parking charging stations

Characteristics [3]	References
Floor-standing charging stations	
7.4 kW – 1 x T2	**EVF1S7P02**
7.4 kW – 1 x T2 – RFID	**EVF1S7P02R**
7.4 kW – 1 x T3	**EVF1S7P03**
7.4 kW – 1 x T3 – RFID	**EVF1S7P03R**
7.4 kW – 2 x T2	**EVF1S7P22**
7.4 kW – 2 x T2 – RFID	**EVF1S7P22R**
7.4 kW – 2 x T3	**EVF1S7P33**
7.4 kW – 2 x T3 – RFID	**EVF1S7P33R**
22.1 kW – 1 x T2	**EVF1S22P02**
22.1 kW – 1 x T2 – RFID	**EVF1S22P02R**
22.1 kW – 1 x T3	**EVF1S22P03**
22.1 kW – 1 x T3 – RFID	**EVF1S22P03R**
22.1 kW – 2 x T2	**EVF1S22P22**
22.1 kW – 2 x T2 – RFID	**EVF1S22P22R**
22.1 kW – 2 x T3	**EVF1S22P33**
22.1 kW – 2 x T3 – RFID	**EVF1S22P33R**
Wall-mounted charging stations	
7.4 kW – 1 x T2	**EVW1S7P02**
7.4 kW – 1 x T2 – RFID	**EVW1S7P02R**
7.4 kW – 1 x T3	**EVW1S7P03**
7.4 kW – 1 x T3 – RFID	**EVW1S7P03R**
7.4 kW – 2 x T2	**EVW1S7P22**
7.4 kW – 2 x T2 – RFID	**EVW1S7P22R**
7.4 kW – 2 x T3	**EVW1S7P33**
7.4 kW – 2 x T3 – RFID	**EVW1S7P33R**
22.1 kW – 1 x T2	**EVW1S22P02**
22.1 kW – 1 x T2 – RFID	**EVW1S22P02R**
22.1 kW – 1 x T3	**EVW1S22P03**
22.1 kW – 1 x T3 – RFID	**EVW1S22P03R**
22.1 kW – 2 x T2	**EVW1S22P22**
22.1 kW – 2 x T2 – RFID	**EVW1S22P22R**
22.1 kW – 2 x T3	**EVW1S22P33**
22.1 kW – 2 x T3 – RFID	**EVW1S22P33R**
Accessories	
Parking cable holder	**EVP1PH**
Protective cover – only for wall-mounted Parking charging station	**EVP1WPSC**

(3) *Charging stations characteristics = Power – Number x type of socket-outlet – RFID: badge reader.*

Additional offer

EVlink Management Services components		Reference
EVlink GPRS Modem		**NCA91000**
PLC software		**References**
Energy and Cluster management SD card		**NCA82000**
Cluster management SD card		**NCA84000**
Subscriptions to supervision		**Reference**
Annual subscription fee		**NCA80080**
EVlink Cable [4]		**References**
32 A - T3 T2 - 5 m	1 phase	**EVP1CNS32132**
	3 phases	**EVP1CNS32332**
32 A - T3 T1 - 5 m	1 phase	**EVP1CNS32131**
Test tool		**Reference**
Electric vehicle simulation tool		**NCA93100**

(4) *Charging cable characteristics = Max current – Connector types – Length – AC charge number of phases.*

Schneider
EVlink

All 'Electric vehicle' news on the website

www.schneider-electric.com/electric-vehicle

> Information

> Advice

> Charging solutions…

and much more!

Make the most of your energy™

www.schneider-electric.com

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